1.   **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes

and/or additions be unacceptable to applicant, an amendment may be filed as provided

by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be

submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview

with Christen Michel on 1/7/10.

The application has been amended as follows:

With regards to claim 1, replace:

"   An apparatus for recognizing a character image from a document, comprising:

an input unit for generating commands for a recognition mode, a correction mode

and a storage mode;

a pre-processor for analyzing pixels of a document image in the recognition

mode, classifying the document image into at least one Character Block (CB) and at

least one Background Block (BB) on the basis of a result of the analysis, binarizing

pixels of the BB and generating a pre-processed document image;

a character recognizer for recognizing the pre-processed document image and

converting the recognized pre-processed document image into character data;

a recognition error processor for correcting or replacing erroneously recognized

character data selected by the input unit with character data output by the input unit in

the correction mode;

a database for storing the recognized character data in the storage mode; and

a display unit for displaying the document image and character data generated during

operating of the modes."

with

--   An apparatus for recognizing a character image from a document, comprising:

an input unit for generating commands for a recognition mode, a correction mode and a storage mode;

a pre-processor for analyzing pixels of a document image in the recognition mode, classifying the document image into at least one Character Block (CB) and at least one Background Block (BB) on the basis of a result of the analysis, binarizing pixels of the BB and generating a pre-processed document image;

a character recognizer for recognizing the pre-processed document image and converting the recognized pre-processed document image into character data;

a recognition error processor for correcting or replacing erroneously recognized character data selected by the input unit with character data output by the input unit in the correction mode;

a database for storing the recognized character data in the storage mode; and

a display unit for displaying the document image and character data generated during operating of the modes,

wherein the display unit displays a set of candidate characters corresponding to the erroneously recognized character data in correction mode and wherein the recognition error processor corrects or replaces the erroneously recognized character data with a candidate character selected from the displayed candidate characters.--

With regards to claim 15, replace:

"   A method for enabling a terminal device to recognize a character image from a document image, comprising the steps of:

(a) designating an operating mode for document recognition;

(b) analyzing pixels of the document image in the document recognition mode, classifying the document image into at least one Character Block (CB) and at least one Background Block (BB) on the basis of a result of the analysis, binarizing pixels of the BB and generating a pre-processed document image;

(c) recognizing the pre-processed document image and converting the recognized pre-processed document image into character data;

(d) selecting erroneously recognized character data, and correcting or replacing the erroneously recognized character data with input character data in a correction mode

(e) storing the recognized character data in a storage mode."

with

--   A method for enabling a terminal device to recognize a character image from a document image, comprising the steps of:

(a) designating an operating mode for document recognition;

(b) analyzing pixels of the document image in the document recognition mode, classifying the document image into at least one Character Block (CB) and at least one Background Block (BB) on the basis of a result of the analysis, binarizing pixels of the BB and generating a pre-processed document image;

(c) recognizing the pre-processed document image and converting the recognized pre-processed document image into character data;

(d) selecting erroneously recognized character data, and correcting or replacing the erroneously recognized character data with input character data in a correction mode, *further comprising steps of:*

> *(d-l) displaying candidate characters corresponding to the erroneously*
> *recognized character data in the correction mode; and*
>
> *(d-2) correcting or replacing the erroneously recognized character data with a*
> *candidate character selected from the displayed candidate characters;*

and

(e) storing the recognized character data in a storage mode.--

Claim 19 is cancel.

2.   Reasons for Allowance

Claims 1-18 and 20-33 are allowable.

With regards to claim 1, the examiner cannot find any applicable prior art disclosing *a display unit displays a set of candidate characters corresponding to the erroneously recognized character data in correction mode and wherein the recognition error processor corrects or replaces the erroneously recognized character data with a candidate character selected from the displayed candidate characters* in combination with the rest of the limitations of claim 1.

With regards to claim 15, see the rationale for claim 1.

With regards to claim 9, the examiner cannot find any suggestions/motivations disclosing a display unit having a *first display* area for displaying an input document image and character data recognized from the input document image, a *second display* area for displaying SAVE items, a *third area* for displaying character data of a selected SAVE item, and another display area for displaying an operating mode menu in combination with the rest of the limitations of claim 9.

With regards to claim 28, see the rationale for claim 9.

With regards to claim 23, the examiner cannot find any suggestions/motivations disclosing a display unit having a *first display* area for displaying an input document

image and character data recognized from the input document image, a *second display*

area for displaying SAVE items, a *third area* for displaying character data of a selected

SAVE item, and another display area for displaying an operating mode menu and

repeating the steps (a) to (d) and storing selected SAVE items and character data

corresponding to the selected SAVE items in combination with the rest of the limitations

of claim 9.

3.   Relevant Art

1.   Yokota (US pat no 6,334,003) figure 7 (3) (4): discloses a recognition error

processor for correcting or replacing erroneously recognized character data selected by

the input unit with character data output by the input unit in the correction mode, but

does not disclose a display unit displays a set of candidate characters corresponding to

the erroneously recognized character data in correction mode and wherein the

recognition error processor corrects or replaces the erroneously recognized character

data with a candidate character selected from the displayed candidate characters.

2.   O'Dell (US pat no 6,956,968) figure 4: disclose a display unit displays a set of

candidate characters corresponding wherein processor corrects or replaces the

erroneously recognized character data with a candidate character selected from the

displayed candidate characters.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALEX LIEW whose telephone number is (571)272-8623 or cell (917)763-1192. The examiner can be reached anytime.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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1/9/10